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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,987	11/16/2001	Tiina Hamalainen	1123.40855X00	7991

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EXAMINER

PYO, KEVIN K

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. ☒

09/987,987

Applicant(s)

HAMALAINEN ET AL.

Examiner

Kevin Pyo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Schyndel et al (6,087,653).

Regarding claim 19, Van Schyndel et al shows in Figs. 2, 2A and 3 the following elements of applicant's claim: a) a first light guide (19) which directs a first beam into a first predefined direction (a beam from a light source (29) is transmitted upward); b) a second light guide (21) which directs a reflection of the first beam (20) into a second predefined direction (col.4, lines 32-36); c) a beam splitter (35; col.4, lines 42-47) within the first light guide (Figs.2, 2A, light transmits upwardly even through bumps 35, therefore bumps acts as a light guide and therefore bumps are within a first light guide 19; col.4, lines 40-41, bumps can be formed integrally with a light guide and therefore becoming a part of a light guide) which splits an incident beam into a first and a second beam (the light beams from the surface of a light guide are split into two portions (beams going upward and 13), Figs.2 and 2A) ; and d) a beam directing device (35 on the upper surface of 21, an internal surface of a light guide 21) directs the second beam from the first light guide to the second guide; and wherein the second light guide comprises a beam directing device (35, an internal surface of 21) which directs the second beam into the second predefined direction.

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Regarding claims 24 and 25, Van Schyndel et al shows in Figs. 2, 2A and 3 the following elements of applicant's claim: a) a transmitter (29) comprising a first light guide (19) which directs a first beam into a first predefined direction; b) a receiver (31); c) a light guide system used with the receiver (Fig.3); d) a second light guide (21) which directs a reflection of the first beam (20) into a second predefined direction (col.4, lines 32-36); e) a beam splitter (35; col.4, lines 42-47) within the first light guide (Figs.2, 2A, light transmits upwardly even through bumps 35, therefore bumps acts as a light guide and therefore bumps are within a first light guide 19; col.4, lines 40-41, bumps can be formed integrally with a light guide and therefore becoming a part of a light guide) which splits an incident beam into a first and a second beam (the light beams from the surface of a light guide are split into two portions (beams going upward and 13), Figs.2 and 2A) ); f) a beam directing device (35 on the upper surface of 21) directs the second beam from the first light guide into the second light guide; and wherein the second light guide (21) comprises a directing device (35, an internal surface of 21) which directs the second beam into the second predefined direction.

Regarding claim 20, Van Schyndel et al discloses the recited beam splitter (35).

Regarding claims 21 and 27, the limitation therein is shown in Fig.2A.

Regarding claims 22, 26 and 28, some bumps 35 or some portions of an internal surface of a light guide 21 are used to transmit only a second beam to a light receiver.

Regarding claim 23, the limitation therein is shown in Fig.3.

Regarding claims 16-18, the method steps therein are inherently disclosed by the apparatus of Van Schyndel et al.

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3. Applicant's arguments filed 12/22/2003 have been fully considered but they are not persuasive.

The main point of applicant's argument regarding Van Schyndel et al is that Van Schyndel et al does not disclose a beam splitter is arranged **within** the first light guide. However, the Examiner disagrees with this argument. As discussed previously, Van Schyndel et al discloses the recited beam splitter (35; col.4, lines 42-47) **within** the first light guide. In view of Figs.2 and 2A, light transmits upwardly even through bumps 35, therefore bumps acts as a light guide and therefore bumps are within a first light guide 19 (col.4, lines 40-41). Bumps can be formed integrally with a light guide and therefore becoming a part of a light guide. It should be noted that the manner in which a claimed apparatus is intended to be used does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitation. It should also be noted that it is the claims that define the claimed invention, and it is claims, not the intended use, that are anticipated or unpatentable.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Pyo whose telephone number is (571) 272-2445. The examiner can normally be reached on Mon-Fri (with flexible hour), First Mon. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin Pyo  
Primary Examiner  
Art Unit 2878

Pkk  
3/21/04